

What is claimed is:

1. An imaging apparatus having a correction circuit for correcting white balance according to the type of illumination light source, said imaging apparatus comprising:

an image sensor having plural red pixels to convert red light photoelectrically, plural green pixels to convert green light photoelectrically, and plural blue pixels to convert blue light photoelectrically, said red, green and blue pixels being arranged in a predetermined pattern;

each of said red, green, and blue pixels having a main pixel and a sub pixel, spectral sensitivity of said main and sub pixels being different from each other; and

a determiner for determining the type of said illumination light source by comparing a first signal being read from said main pixel with a second signal being read from said sub pixel.

2. An imaging apparatus as claimed in claim 1, wherein said determiner compares a first addition signal with a second addition signal of each color, said first addition signal is the sum of said first signal read from each of said main pixels of the same color, and said second addition signal is the sum of said second signal read from each of said sub pixels of the same color.

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3. An imaging apparatus as claimed in claim 2, wherein said determiner performs said comparison for each color, and determines said illumination light source as a different type

of light source when at least one ratio of each color is not a predetermined value determined for each color.

4. An imaging apparatus as claimed in claim 3, wherein  
5 said determiner determines the kind of said different type of light source according to difference between said first addition signal and a value, which is calculated by multiplying a coefficient to said second addition signal of the color used for discrimination of said different type of light source.

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5. An imaging apparatus as claimed in claim 1, wherein a light receiving area of each of said main pixel is larger than that of each of said sub pixel.

15 6. An imaging apparatus as claimed in claim 5, wherein said imaging apparatus is a digital camera.

7. An imaging apparatus as claimed in claim 6, wherein said red, green and blue pixels are arranged in a honeycomb manner.

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8. An imaging apparatus as claimed in claim 5, wherein a sensitivity wave-length range of said sub pixel is smaller than that of said main pixel.

25 9. An imaging apparatus as claimed in claim 8, wherein said main pixel includes a color filter and a main photosensitive portion; and

wherein each of said sub pixel includes said color filter

common to the color filter of said main pixel, and a sub photosensitive portion.

10. An imaging apparatus as claimed in claim 9, wherein  
5 said main and sub photosensitive portions are respectively different in thickness in an optical axis direction, in order to differentiate each of said spectral sensitivity.

11. An imaging apparatus as claimed in claim 9, wherein  
10 said sub pixel has a sub filter connected to said color filter in order to differentiate each of said spectral sensitivity.

12. An imaging apparatus as claimed in claim 9, wherein  
the thickness of said color filter in the area facing said main  
15 photosensitive portion and the thickness of said color filter in the area facing said sub photosensitive portion are different in order to differentiate each of said spectral sensitivity.